WHAT IS CLAIMED IS:

1.   An image processing apparatus, comprising:

first transfer means for generating a print ID corresponding to an input image data on which a forgery preventing process has been performed, and transferring the print ID to an image data recording device;

print control data generating means for encrypting the image data using a common key transmitted from said image data recording device, representing the data as a print control command, and generating print control data; and

second transfer means for transferring the print control data and the print ID to said image data recording device.

2.   An image processing apparatus, comprising:

image process means for performing an image process including a forgery preventing process on input image data;

print ID generating means for generating a print ID corresponding to the image data on which said image process means has performed the forgery preventing process;

first transfer means for transferring the print ID generated by said print ID generating means to an image data recording device;

encryption means for encrypting the image data on

which said image process means has performed a
predetermined process using a common key transmitted
from said image data recording device;

print control data generating means for generating
5   print control data by converting the print image data
encrypted by said encryption means into a print control
command; and

second transfer means for transferring the print
control data generated by said print control data
10   generating means and the print ID generated by said
print ID generating means to said image data recording
device.

3.   The apparatus according to claim 2, wherein
15   said encryption means performs an encryption
process using a conversion table generated using the
common key.

4.   An image data recording device, comprising:
20   common key generating means for generating a
common key based on a print ID transferred from an
image data processing device;

management means for managing the common key
generated by said common key generating means and the
25   print ID transferred from said image data processing
device;

common key issue means for transmitting the common

key generated by said common key generating means to said image data processing device;

common key obtaining means for obtaining the common key corresponding to the print ID from said management means when the print ID and print control data are transmitted from said image data processing device;

analyzing means for extracting encrypted print image data by analyzing a command of the print control data using the common key obtained by said common key obtaining means;

decryption means for decrypting the print image data extracted by said analyzing means using the common key obtained by said common key obtaining means; and

print means for recording the print image data decrypted by said decryption means in a recording medium.

5. The apparatus according to claim 4, wherein said common key generating means generates the common key without regularity independent of a value of the print ID.

6. The apparatus according to claim 4, wherein said decryption means performs a decryption process using a conversion table generated using the common key.

7.   A image data recording system, comprising:

an image data processing device: comprising:

first transfer means for generating a print ID corresponding to an input image data on which a forgery preventing process has been performed, and transferring the print ID to an image data recording device;

print control data generating means for encrypting the image data using a common key transmitted from said image data recording device, and representing the data as a print control command; and

second transfer means for transferring the print control data represented as the print control command and the print ID to said image data recording device; and

an image data recording device, comprising:

common key generating means for generating a common key based on the print ID transferred from said image data processing device;

management means for managing the common key generated by said common key generating means and the print ID transferred from said image data processing device;

common key issue means for transmitting the common key generated by said common key generating means to said image data processing device;

common key obtaining means for obtaining the

common key corresponding to the print ID and print

control data transmitted from said image data

processing device from said management means;

analyzing means for extracting encrypted

5 print image data by analyzing a command of the print

control data using the common key obtained by said

common key obtaining means;

decryption means for decrypting the print

image data extracted by said analyzing means using the

10 common key obtained by said common key obtaining means;

and

print means for recording the print image

data decrypted by said decryption means on a recording

medium.

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8. An image data recording system, comprising:

an image data processing device, comprising:

image process means for performing an image

process including a forgery preventing process on input

20 image data;

print ID generating means for generating a

print ID corresponding to the image data on which said

image process means has performed the forgery

preventing process;

25 first transfer means for transferring the

print ID generated by said print ID generating means to

an image data recording device;

encryption means for encrypting the image
data on which said image process means has performed a
predetermined process using a common key transmitted
from said image data recording device;

5   print control data generating means for
generating print control data by converting the print
image data encrypted by said encryption means into a
print control command; and

          second transfer means for transferring the
10   print control data generated by said print control data
generating means and the print ID generated by said
print ID generating means to said image data recording
device; and

          an image data recording device, comprising:
15   common key generating means for generating a
common key based on the print ID transferred from said
image data processing device;

          management means for managing the common key
generated by said common key generating means and the
20   print ID transferred from said image data processing
device;

          common key issue means for transmitting the
common key generated by said common key generating
means to said image data processing device;

25   common key obtaining means for obtaining the
common key corresponding to the print ID and print
control data transmitted from said image data

processing device from said management means;

analyzing means for extracting encrypted print image data by analyzing a command of the print control data using the common key obtained by said

5   common key obtaining means;

decryption means for decrypting the print image data extracted by said analyzing means using the common key obtained by said common key obtaining means; and

10   print means for recording the print image data decrypted by said decryption means on a recording medium.

9.   A method for controlling an image data

15   recording system having an image data processing device and an image data recording device, comprising the steps of:

in the image data processing device

performing a first transfer process by

20   generating a print ID corresponding to an input image data on which a forgery preventing process has been performed and transferring the print ID to an image data recording device; generating print control data by encrypting the image data using a common key

25   transmitted from said image data recording device and representing the data as a print control command; and performing a second transfer process by transferring

the print control data represented as the print control command and the print ID to said image data recording device; and

in the image data recording device

5   generating a common key based on the print ID transferred from said image data processing device; managing through management means the common key generated in said common key generating process and the print ID transferred from said image data processing

10   device; performing a common key issue process by transmitting the common key generated in said common key generating process to said image data processing device; obtaining the common key corresponding to the print ID and print control data transmitted from said

15   image data processing device from said management means; extracting encrypted print image data by analyzing a command of the print control data using the common key obtained in said common key obtaining process; decrypting the print image data extracted in

20   said analyzing process using the common key obtained in said common key obtaining process; and performing a printing process by recording the print image data decrypted in said decryption process on a recording medium.

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10. A method for controlling an image data recording system having an image data processing device

and an image data recording device, comprising the steps of:

in the image data processing device

performing an image process including a
forgery preventing process on input image data;
generating a print ID corresponding to the image data
on which said image process has performed the forgery
preventing process; performing a first transfer process
by transferring the print ID generated in said print ID
generating process to an image data recording device;
encrypting the image data on which said image process
has performed a predetermined process using a common
key transmitted from said image data recording device;
generating print control data by converting the print
image data encrypted in said encryption process into a
print control command; and performing a second transfer
process by transferring the print control data
generated in said print control data generating process
and the print ID generated in said print ID generating
process to said image data recording device; and

in the image data recording device

generating a common key based on the print ID
transferred from said image data processing device;
managing through management means the common key
generated in said common key generating process and the
print ID transferred from said image data processing
device; performing a common key issue process by

transmitting the common key generated in said common key generating process to said image data processing device; obtaining the common key corresponding to the print ID from said image data processing device and

5   print control data from said management means; extracting encrypted print image data by analyzing a command of the print control data using the common key obtained in said common key obtaining process; decrypting the print image data extracted in said

10   analyzing process using the common key obtained in said common key obtaining process; and performing a printing process by recording the print image data decrypted in said decryption process on a recording medium.

15   11.   A computer-readable storage medium storing a program for directing an image data recording system having an image data processing device and an image data recording device, said program comprising:

         a first transfer process by generating a print ID

20   corresponding to an input image data on which a forgery preventing process has been performed, and transferring the print ID to an image data recording device;

         a print control data generating process by encrypting the image data using a common key

25   transmitted from said image data recording device, and representing the data as a print control command;

         a second transfer process by transferring the

print control data represented as the print control

command and the print ID to said image data recording

device;

5   a common key generating process based on a print

ID transferred from said image data processing device;

a managing process by managing through management

means the common key generated in said common key

generating process and the print ID transferred from

said image data processing device;

10   a common key issue process by transmitting the

common key generated in said common key generating

process to said image data processing device;

a common key obtaining process by obtaining a

common key corresponding to the print ID and print

15   control data transmitted from said image data

processing device from said management means;

an analyzing process by extracting encrypted print

image data by analyzing a command of the print control

data using the common key obtained in said common key

20   obtaining process;

a decryption process by decrypting the print image

data extracted in said analyzing process using the

common key obtained in said common key obtaining

process; and

25   a printing process by recording the print image

data decrypted in said decryption process on a

recording medium.

12.   A computer-readable storage medium storing a
program for directing an image data recording system
having an image data processing device and an image
data recording device, said program comprising:

5   an image processing process including a forgery
preventing process to be performed on input image data;

         a print ID generating process performed
corresponding to the image data on which said image
process has performed the forgery preventing process;

10   a first transfer process by transferring the print
ID generated in said print ID generating process to an
image data recording device;

         an encryption process by encrypting the image data
on which said image process has performed a
15   predetermined process using a common key transmitted
from said image data recording device;

         a process of generating print control data by
converting the print image data encrypted in said
encryption process into a print control command; and

20   a second transfer process by transferring the
print control data generated in said print control data
generating process and the print ID generated in said
print ID generating process to said image data
recording device;

25   a common key generating process based on the print
ID transferred from said image data processing device;

         a managing process of managing through management

means the common key generated in said common key

generating process and the print ID transferred from

said image data processing device;

a common key issue process by transmitting the

5 common key generated in said common key generating

process to said image data processing device;

a common key obtaining process by obtaining the

common key corresponding to the print ID and print

control data transmitted from said image data

10 processing device from said management means;

an analyzing process by extracting encrypted print

image data by analyzing a command of the print control

data using the common key obtained in said common key

obtaining process;

15 a decryption process by decrypting the print image

data extracted in said analyzing process using the

common key obtained in said common key obtaining

process; and

a printing process by recording the print image

20 data decrypted in said decryption process on a

recording medium.

13. A method for controlling an image processing

apparatus, comprising the steps of:

25 performing an image process including a forgery

preventing process to be performed on input image data;

generating a print ID corresponding to the image

data on which said forgery preventing process has been performed;

transferring the generated print ID to an image data recording device;

5   encrypting the image data on which a predetermined process has been performed in said image processing step using a common key transmitted from said image data recording device;

generating print control data by converting the
10   encrypted print image data into a print control command; and

transferring the generated print control data and the generated print ID to said image data recording device.

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14.   A method for controlling an image data recording device, comprising the steps of:

generating a common key based on a print ID transferred from an image data processing device;
20   managing the generated common key and the print ID transferred from said image data processing device;

transmitting the generated common key to said image data processing device;

obtaining the common key corresponding to the
25   print ID when the print ID and print control data are transmitted from said image data processing device;

extracting encrypted print image data by analyzing

a command of the print control data using the obtained

common key;

decrypting the extracted print image data using

the obtained common key; and

5   recording the decrypted print image data in a

storage medium.